

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Policies,
Procedures and Incentives for Distributed
Generation and Distributed Energy Resources.

Rulemaking 04-03-017
(Filed March 16, 2004)

**ADMINISTRATIVE LAW JUDGE'S RULING REQUESTING COMMENTS ON
ENERGY DIVISION RECOMMENDATIONS TO IMPROVE THE SELF GENERATION
INCENTIVE PROGRAM AND IMPLEMENT ASSEMBLY BILL 1685**

This ruling seeks comments on the attached Energy Division report regarding improvements to the Self Generation Incentive Program (SGIP) authorized originally by Assembly Bill (AB) 970. In reaching its conclusions, the Energy Division report considers four evaluation reports submitted by Itron on behalf of the program administrators, and parties' comments. The comments were filed in response to an Administrative Law Judge ruling dated December 10, 2003 and issued in R.99-10-025, in which the Commission reviewed distributed generation policies before opening this rulemaking. The attached report also addresses a motion filed by California Solar Energy Industries Association on March 26, 2004.

Parties should file their comments on the Energy Division report no later than July 23, 2004.

IT IS RULED that:

1. Comments on the attached Energy Division report are due by July 23, 2004.
2. All comments required by this ruling shall be filed at the Commission's Docket Office in this proceeding, and served electronically to all appearances and

the state service list. Service by U.S. mail is optional, except that one hard copy shall be mailed to the assigned Administrative Law Judge. In addition, if there is no electronic mail address available, the electronic mail is returned to the sender, or the recipient informs the sender of an inability to open the document, the sender shall immediately arrange for alternate service (regular U.S. mail shall be the default, unless another means is mutually agreed upon). Parties that prefer a hard copy or electronic file in original format in order to prepare filings in this proceeding may request service in that form as well. The current service list for this proceeding is available on the Commission's web page, www.cpuc.ca.gov.

Dated July 9, 2004, at San Francisco, California.

/s/ KIM MALCOLM

Kim Malcolm
Administrative Law Judge

**Energy Division Recommendations to Improve the
Self Generation Incentive Program and Implement
Assembly Bill 1685**

Summary

This report prepared by the Energy Division recommends specific improvements to the Self Generation Incentive Program (SGIP) created by Assembly Bill (AB) 970. The recommendations are based on three years of program experience as described in the SGIP evaluation reports submitted under R.98-07-037, comments to the reports, and suggestions by interested parties. The staff's proposed modifications implement the provisions of Assembly Bill (AB) 1685, maintain the annual SGIP budget of \$125 million through 2007, eliminate the maximum percentage payment limits, and reduce the dollar-per-watt incentive payment for certain Level 1 technologies. Additionally, staff recommends the Commission retain the San Diego Regional Energy Office (SDREO) as a non-utility program administrator through 2007, and expand the Working Group to include industry participation.

Energy Division further recommends processes to make more SGIP data publicly available, and to coordinate and complete the DG cost effectiveness analyses specified in AB Bill 58 (net metering) and AB 970. And, lastly, we recommend the Commission clarify which, if any, utility distribution companies are eligible to receive SGIP incentives.

Background

The Commission adopted the SGIP on March 27, 2001, pursuant to AB 970. Under the program adopted in Decision (D.) 01-03-073 and modified in D.02-09-051, certain entities qualify for financial incentives to install three

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different categories (or levels) of clean and renewable distributed generation used to serve some portion of a customer's onsite load:

- Level 1: The lesser of 50% of project costs or \$4.50/watt for photovoltaics, wind turbines, and fuel cells operating on renewable fuels;
- Level 2: The lesser of 40% of project costs or \$2.50/watt for fuel cells operating on non-renewable fuel and utilizing sufficient waste heat recovery,
- Level 3
 - 3-R: The lesser of 40% of projects costs or \$1.50/watt for microturbines, internal combustion engines, and small gas turbines utilizing renewable fuel.
 - 3-N: The lesser of 30% of project costs or \$1.00/watt for the above combustion technologies operating on non-renewable fuel, utilizing sufficient waste heat recovery and meeting certain reliability criteria.

D.01-03-073 made these incentives available through December 31, 2004. It identified Pacific Gas & Electric Company (PG&E), Southern California Gas Company (SoCalGas), Southern California Edison Company (SCE) , and the SDREO to administer the statewide program in their respective service territories.¹ The Commission directed SoCalGas to facilitate a Working Group comprised of the administrators, San Diego Gas & Electric Company (SDG&E), and staff from the Energy Division, and the California Energy Commission (CEC) to develop appropriate program details to encourage self-generation. The Working Group meets monthly to ensure uniform implementation statewide.

¹ SDREO administers the program in the SDG&E service territory.

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In D.01-03-073, the Commission stated the SGIP would be evaluated at various intervals both during and after the program period. The program administrators were required to perform periodic program evaluations and load impact studies to verify energy production and system peak demand reductions, and conduct an independent analysis of the relative effectiveness of utility and non-utility program administrators. These activities were outsourced to Itron (formerly known as RER).

To date, Itron has submitted four reports which evaluate operational impacts, program administration, and the first and second year incentives process.

On October 12, 2003, AB 1685 was enacted into law. The legislation adopts emissions and efficiency eligibility requirements that fossil-fueled DG projects must meet in order to receive rebates from the SGIP, and extends the program through December 31, 2007. The new eligibility standards go into effect January 1, 2005.

On December 10, 2003, an ALJ ruling issued in R.99-10-025 requested comments to the evaluation reports prepared by Itron, as well as on other SGIP-related issues. The Commission received comments on January 30, 2004 from SCE, SDG&E, SDREO, SoCalGas, PG&E, Joint Parties Interested in Distributed Generation (JPIDG), California Solar Energy Industries Association (CALSEIA), Megawatt Energy Corporation (Megawatt), NECO Energy Corporation (NECO), Distributed Energy Strategies, Inc. (DES), SolarGen, the Sacramento Municipal Utility District, and the SGIP Working Group. Reply comments were received on February 16, 2004 from all the above entities except for SolarGen, Megawatt and NECO.

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The Commission opened Order Instituting Rulemaking (R.) 04-03-017 on March 16, 2004, closed R.98-07-073, and transferred any remaining DG issues from R.99-10-025 and R.98-07-037 to the new proceeding.

CALSEIA subsequently filed a motion on March 26, 2004 reiterating its previously filed comments.

Independent Evaluation Results

Itron evaluated SGIP processes, impacts, and administrative approaches for 2001 and 2002, and provided recommendations for improvements to the program. Data collection sources included program tracking data from the program administrators, marketing plans and materials, and interviews with program participants (host customers, suppliers, program administrators, and on-site verification auditors). Itron also surveyed non-participant customers and suppliers, some of whom had attended SGIP workshops.

Itron encountered difficulties collecting onsite operational data, such as thermal efficiency and generator output. Some customers who installed their own onsite monitoring equipment either did not use the generator or the equipment, did not provide Itron access to facility operational data as previously agreed, or expressed concern about program administrators potentially receiving the data. Some utility administrators had problems with internal data collection, which delayed delivery of certain interconnection and metering data to the consultant.

Overall, the program received high satisfaction ratings from customers and suppliers. These participants believe the SGIP helps develop a demand for DG, particularly by supporting third-party installations. Some suppliers state their business is dependent on the SGIP. Other customer/supplier observations:

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the interconnection process remains problematic, meter installation and billing for net metered systems is confusing, and the Program Handbook is complex.

The Itron 2002 Process and Impacts reports made ten recommendations for improving the SGIP:

1. Modify incentive structure. Eliminate project cost limit, move toward flat, dollar per watt incentives.
2. Develop an exit strategy. Extend current end date to allow a transitional strategy, conduct additional process evaluation.
3. Eliminate requirements for air permit and interconnection applications.
4. Extend proof of progress and completion deadlines for new construction projects.
5. Simplify requirements for completion deadline. Eliminate final project cost breakdown, accept temporary rather than final permit to operate.
6. Assign an SGIP representative or subcommittee to educate other entities, such as utility interconnection staff and local building agencies, about program requirements and help troubleshoot problems.
7. Revise Program Handbook and contractual documents to require participants to provide operational project data to Itron (not utilities) upon request, and provide reasonable compensation to cover those costs.
8. Improve interconnection process to ensure implementation is consistent across the state, particularly requirements for protection devices.
9. Improve website links to program information. Provide links to SGIP information, industry information sources, and other key DG websites.

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10. Determine cost effectiveness methodology for all load removal programs.

Itron also examined the relative effectiveness of utility and non-utility administration. Itron concluded that a true non-utility approach is not feasible due to the current contract design and funding mechanisms. Factors cited include differences across market areas and utilities, utility fiscal oversight of the non-utility administrator, and interventions by the working group.

Energy Division Recommendations

Energy Division recommends the following program improvements based on the Itron reports and comments submitted by parties in response to the December 10, 2003 ALJ Ruling regarding the need for program improvements.

1. The Commission Should Eliminate the Maximum Project Percentage Cap

Parties almost unanimously agree that the project cost percentage cap is burdensome and unnecessary. Under the current incentive structure, applicants receive a dollar per watt incentive, up to a maximum percentage of eligible installed costs. This structure requires the applicant to determine which project costs are eligible and ineligible, and submit these costs to the program administrator for review. The program administrator reviews these costs to ensure eligibility. Program administrators and applicants each describe the voluminous amount of documentation submitted in order to justify cost eligibility. Parties state that reviewing these costs creates an administrative burden for applicants and program administrators alike, and lengthens the amount of time between project completion and issuance of incentive payments.

SDREO and others point out that under the present structure, an applicant does not know the exact amount of the incentive payment until the program

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administrator completes a detailed project analysis. A flat dollar per watt approach would provide rebate certainty, and could allow more even treatment of applicants with non-traditional project ownership or lease arrangements.

Capstone believes a change to a dollar per watt structure will create uncertainty while the market adjusts to the new approach. As an alternative, Capstone proposes allowing applicants to choose either a dollar per watt or percentage cap structure on a project-by-project basis. JPIDG observes that applicants basically use this approach now to determine which formula results in the highest incentive. Projects with the high installed cost use the fixed dollar per watt method, whereas projects with low installed costs use the percentage cost limitation.

Energy Division recommends the Commission eliminate the percentage caps within 30 days of the decision's effective date. Reservation requests received by program administrators on or after Day 30 will be calculated based on generating capacity (i.e., dollar per watt basis), with no maximum percentage cap. Applications received before Day 30 will be processed under the existing incentive structure. This approach will reduce program complexity and administrative costs, provide an incentive for developers to reduce project costs, and simplify the program handbook and related documents.

2. The Commission Should Reduce The Dollar Per Watt Payment For Solar and Wind Projects to \$4.05 To Accommodate Maximum Participation

Most parties urge the Commission to immediately reduce incentive payments to ensure that SGIP funding, particularly for Level 1 projects, will not be depleted before the end of 2004. Level 1 applicants reserved \$228.4 million Level 1 funds from the SGIP in this year alone. Program administrators have exercised the discretion granted in D.01-03-073 to reallocate unencumbered

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funds from other incentive categories or administrative budgets, and carried forward unused funds from prior program years. Even so, as of May 31, 2004, SCE, SoCalGas, and SDREO have an approximate combined total of \$27 million Level 1 funds remaining and PG&E has a waiting list of Level 1 projects totaling 11.76 MW. More recently, data on the program administrators' websites indicates Level 1 applicants reserved additional funds in June 2004. SDREO created a waiting list in late June.

Parties who support decreasing Level 1 incentives for photovoltaics and wind turbines compare the costs of SGIP-funded projects to projects funded by the CEC Emerging Renewables Buydown Program. The CEC pays incentives to systems sized under 30 kW; the SGIP funds systems between 30kW and 1 MW. As PG&E observes, the CEC and the SGIP had the same rebate amount of \$4.50 per watt when the SGIP began in 2001. As of July 1, 2004, the CEC pays \$3.40 per watt for fuel cells, \$3.00 per watt for photovoltaics, and \$1.90 per watt for wind projects. SCE points out that historically, per KW costs of larger photovoltaic systems are less than those of smaller systems, thus warranting a lower incentive payment.

PG&E, CALSEIA, and others also support a declining rebate structure over the life of the program. SDREO does not object to a declining structure or decreased dollar per watt payment, but believes a cost benefit analysis should be completed prior to making any change beyond eliminating the percentage cap. SMUD asserts that declining rebate levels must be established by specific dates rather than by program milestones such as dollars expended or capacity installed.

Parties also support lowering incentives for other levels. PG&E proposes the Commission replace "Levels" with "Technologies" to more accurately reflect

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particular technology characteristics. JPIDG believes the Commission should lower Level 3 incentives from \$1.00 per watt to \$0.85 watt. Capstone expresses concern that a decrease of Level 3 incentives could make beneficial projects with higher costs economically unattractive to potential customers.

Given current high participation rates and the likelihood that the SGIP will continue to stimulate installation of small-scale DG in the near-term, we recommend the Commission lower the dollar per watt incentives for Level 1 technologies. This approach, combined with the elimination of maximum percentage caps, will allow more projects to apply for and receive incentives, will reduce project costs for photovoltaic projects, and will more accurately reflect the low project costs of wind turbines. We do not recommend decreasing dollar per watt incentives for fuel cells within the Level 1 Category, as this market segment has not yet developed to its anticipated potential. We share Capstone's concern that reducing Level 3 incentives could deter customers from installing microturbines, which along with fuel cells are the only technologies to receive certification status from the California Air Resources Board (ARB).

Staff does not disagree with parties who state the Commission would benefit from a DG cost benefit analysis in order to develop an optimal dollar per watt incentive amount. However, the urgency expressed by parties for an incentive decrease necessitates immediate action, and outweighs any value of waiting until such an analysis is completed. In adopting lower incentive levels, the Commission must take into account that the incentive programs offered by the Commission and the CEC have different objectives. The Legislature's primary goals for the AB 970 incentive program are reduced peak demand and increased system reliability. It is still appropriate for the SGIP to pay higher incentives than those offered by the CEC. The Commission should adopt the

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CALSEIA proposal to decrease Level 1 incentives to \$4.05 per watt. The reduction should be implemented in accordance with the schedules specified for the percentage cap elimination.

3. The Commission Should Increase Eligible Capacity Size to 5 MW

Currently, the SGIP allows projects up to 1.5 MW, but limits incentives to 1 MW. Some parties believe the Commission should increase the maximum size limit to encourage customers with large onsite load to install higher capacity DG. Developers and customers could take advantage of the economies of scale for larger projects, which means utility ratepayers would pay less per KW. Additionally, large Level 3 technologies not certified by CARB may meet the emissions standards adopted in AB 1685 more easily than projects under 1 MW.

JPIDG and SDREO recommend a size cap of 5 MW, which is also the size limit for DG units eligible for the standby charge waiver adopted in SBX1-28 and D.03-04-060. JPIDG recommends the program pay incentives for the entire 5 MW. PG&E does not oppose raising project size limits, but notes an increase of incentive payments from 1 MW to 5MW would allow only a few projects to receive incentives before depleting a program administrator's entire annual budget. PG&E also expresses concern over the potential for "free ridership" if the incentive size cap is increased.

Energy Division staff believes that the SGIP should not discourage installation of projects above 1.5 MW for customers with onsite load to consume the output. We agree with parties who state that increasing eligible capacity size to 5 MW would promote consistency between the SGIP and the SBX1-28 standby rate exemption, and may allow developers, customers, utilities, and ratepayers to receive cost savings achieved by larger projects.

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At this time, staff does not support lifting incentive payments above the current 1 MW until the Commission has a better understanding of the costs and benefits of DG and other available resource options. The Commission will evaluate DG cost benefit methodologies in R.04-03-017. Further, D.01-03-073 determined that the SGIP should subsidize DG which reflects value to the entire electricity system, not just individual customers. Until the Commission makes a determination regarding whether and how financial and rate incentives for DG could appropriately reflect significant system benefits over central station generation, energy efficiency, or other resource options, the Commission should not experiment with increasing rebate levels for individual projects.

4. The Commission Must Ensure Appropriate Dissemination of SGIP Data

Parties representing DG Developers state that unless program data is publicly available, they are unable to perform an adequate analysis of issues such as those raised in the December 10, 2003 ALJ ruling regarding appropriate rebate levels, DER cost and benefits, and whether the SGIP meets program goals.

Parties propose various methods to disseminate SGIP data. DES proposes that the Commission require future SGIP evaluation reports to compare SGIP project data with IOU Rule 21 status reports, interconnection costs for the developer and IOU, cost responsibility surcharge exemption data, and other relevant market or technology-specific performance data to ensure coordination among various regulatory structures and incentives programs. JPIDG asserts that market participants now have more knowledge of the true and the “unforeseeable” costs of a DG project, such as interconnection, permitting, and other compliance activities. DES asserts that program administrators should not

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be allowed to obtain certain proprietary information from applicants, such as lease agreements and other contracts between a developer and its client.

CALSEIA recommends the Commission release raw SGIP data to an impartial third party, such as a national lab, for analysis of issues such as net metering and rate design. SDREO believes that any data available to Itron should be made publicly available.

The IOUs express concerns about releasing confidential customer information that identifies individual projects without customer consent. The Joint Working Group indicates the group is aware of the need to make more data publicly available. Program administrators recently aggregated certain statewide project information, which is posted on their respective websites.

In R.04-03-017, the Commission recognized the value of DG data collected by utilities and various state agencies, and proposed to streamline data collection and dissemination. We anticipate this will be a priority task for the rulemaking. However, we believe the Commission need not wait until all data issues are resolved to begin the process of determining which SGIP data may be publicly released.

In the absence of customer input, staff cannot conclude that all utility customers with projects funded by the SGIP support release of proprietary information without consent. Moreover, we recognize the utilities have a legal responsibility to protect the release of customer information. While the program administrators submit individual project data to the Commission, they do so under the assurance and protection of confidentiality provisions of the California Public Utilities Code.

Energy Division recommends the SGIP Working Group expand upon the data release format recently posted on each program administrator's website.

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The Commission should direct the Working Group to appoint a subgroup consisting of SDREO and a utility program administrator, in consultation with Energy Division and CEC staff, to develop a data release format which more closely resembles the format used by the CEC's Emerging Renewables Incentive Program. CEC data points include the following:

- Seller;
- Installer;
- City and zip code;
- Utility name;
- Technology (including model and manufacturer);
- Capacity size;
- Installed price; and
- Inverter model and manufacturer, where applicable.

The subgroup should develop and circulate a proposed format for discussion among Working Group members. The Working Group should submit a proposed format to the Commission within 60 days of the effective date of the decision.

5. The Commission Should Direct the Working Group To Develop An Exit Strategy in Collaboration With Industry Participants

Parties recognize the SGIP will not be extended indefinitely. Most parties support three overall principles to achieve a smooth market transition. First, a declining incentive structure will likely be the best option to phase out the program. Second, the exit plan must be communicated to industry participants in advance. And, last, the Commission should complete a cost effectiveness analysis to determine whether DG provides significant economic, environmental, or societal benefits which warrant continued rebates in some form.

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Energy Division concurs that understanding cost effectiveness is critical to development of an exit plan. The Commission should direct the SGIP Working Group to develop and file for comment in this proceeding a proposal to implement an exit strategy. The group should apply any cost effectiveness measures, when adopted in R.04-03-017, and should seek input from industry participants prior to submitting the proposal.

6. Itron Should Assess the Cost Effectiveness of the SGIP and the Net Metering Program

The Commission has received three legislative mandates to assess the costs and benefits of distributed generation. These mandates were adopted as a means to evaluate the financial and rate incentives adopted during the energy crisis to facilitate rapid deployment of DG and other resource options aimed at reducing system demand during critical peak times. First, AB 970 directed the Commission to reassess cost-effectiveness tests for energy efficiency, load control, and distributed generation, in order to evaluate the potential contributions of these methods to decrease peak demand on the grid. Second, Senate Bill (SB) 28 directed the Commission to adopt a DG tariff, and to develop a methodology to assess the costs and benefits of units taking service under the tariff. Lastly, AB 58 directed the Commission to work with an independent consultant to evaluate the costs and benefits of net energy metering systems over 10kW,² and to consider the economic and environmental impacts to utilities,

² "Net energy metering" refers to the cumulative program described in PU Code § 2827. Net metering allows customers who install solar, wind, biomass, or fuel cell generators 1 MW or less to compare annual production to annual consumption, and to pay the utility for net consumption, if any.

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ratepayers, and society. The Commission must submit the consultant's findings in a report to the Legislature by January 1, 2005.

The Commission has taken the following actions regarding cost-benefit analysis:

1. Directed the Energy Division to hire an independent consultant to reevaluate the cost benefit tests as described in AB 970.
2. Directed the Energy Division to coordinate SGIP evaluation activities conducted by Itron with AB 970 cost benefit assessment.
3. Opened R.04-03-017 to, among other things, develop a DG cost benefit methodology.
4. Opened R.04-04-025 to develop avoided cost metrics for various rulemakings.

The consulting firm of E3 prepared and submitted a report in R.01-08-028 which evaluates methods to assess energy efficiency projects. The Commission stated in R.04-03-017 that the E3 report will be utilized to the extent the content is applicable to developing a cost benefit methodology for DER.

Virtually all net metering projects over 10kW receive incentive funds from either the Commission or the CEC. Energy Division directed Itron to conduct an evaluation of the net metering program, investigate concerns raised in the 2002 evaluation report, and fulfill the AB 58 requirements. Itron will utilize project measurement tools and infrastructure already in place for SGIP monitoring and evaluation purposes. We recommend the Commission direct Energy Division to file the report and to serve a Notice of Availability to parties in R.04-03-017, concurrent with submission to the legislature.

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Lastly, staff recommends that Itron conduct a cost effectiveness analysis of the SGIP by December 31, 2005. The Commission should direct the Working Group to develop and submit a proposed work plan and schedule to complete this task.

7. The Commission Should Retain SDREO As A Program Administrator Through 2007.

Itron's general findings conclude that utility and non-utility approaches each bring different strengths to program administration. For example, some, but not all, utility administrators had lower administrative and marketing costs, achieved a slightly higher penetration rate within the service territory, and could draw expertise from a larger organizational structure. The non-utility program goals tended to be more closely aligned with the SGIP goals, workshops reached a higher proportion of potential participants, and supplier comparative ratings indicated a slight preference for the non-utility approach. Itron found no difference in administrator effectiveness regarding monitoring and evaluation support, emphasis on clean power, customer awareness and satisfaction, or overall supplier satisfaction.

Comments filed by utility administrators agree with the relative effectiveness of each approach to administer the SGIP, but believe the higher administrative costs for non-utility administration justify replacing SDREO with SDG&E. SDG&E states that its costs for incremental activities such as interconnection safety, contract management, and responsibility for program administrator expenses must be recognized and funded by the SGIP.

SDREO confirms that the current contractual arrangement with SDG&E prevents SDREO from performing a truly independent, non-utility administration. SDREO questions whether the Commission intended to create an

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additional layer of administration in San Diego. SDREO describes the process to administer an individual project in which SDG&E performs duplicative cost documentation, accounting, and engineering review functions, approves all final incentive claims, and issues incentive payments to SDREO, who then issues the final incentive check to the applicant.

SDREO recommends a contractual arrangement that gives greater independence in program administration and fiscal decision-making, and reduces the overall time and cost to administer final incentive claims. SDREO proposes two contractual mechanisms to achieve administrative independence and assuage utility concerns about SGIP cost recovery. The first mechanism would establish regular interval payments of the total annual SGIP budget amount from SDG&E to SDREO. The second mechanism would hold SDREO responsible to repay all disallowed costs. SDREO believes eliminating the maximum project percentage cap will also reduce the risk of utility disallowances.

While SDG&E, PG&E, and SCE cite fiscal, contract management, and ratepayer responsibility concerns, no program administrator questions SDREO's overall administrative competence or contribution to the statewide Working Group. SDREO proposes reasonable solutions to eliminate duplicative efforts, reduce administrative costs, and mitigate utility cost recovery concerns. Energy Division recommends the Commission retain SDREO to administer the SGIP in SDG&E's service territory through 2007, approve SDREO's request for interval disbursement of program funds from SDG&E, direct SDG&E to eliminate duplicative administrative functions and to update its contractual arrangements with SDREO. SDG&E should submit proposed contract amendments that reflect

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these directives to the Energy Division within 30 days of a Commission decision on this issue.

8. Manufacturer and Engineering Specifications Are Sufficient To Achieve Compliance With AB 1685 Requirements

AB 1685 adds new emission and efficiency eligibility requirements to the SGIP. Commencing January 1, 2005, fossil-fueled projects must emit no more than 0.14 pounds of nitrogen oxides (NO_x) per megawatthour (MWH). On January 1, 2007, allowable NO_x emissions decrease to 0.07 pounds per MMW. To meet the 2005 and 2007 criteria, DG projects may take a credit of one MWH for each 3.4 million British Thermal Units (BTUs) of heat recovered by the facility. Beginning January 1, 2007, fossil-fueled projects must also meet a minimum efficiency of 60 percent, calculated as useful energy output divided by fuel input. The efficiency determination shall be based on 100 percent load.

Currently, the SGIP requires Level 2 and Level 3 projects to meet the 42.5 percent annual average minimum efficiency requirements of Public Utilities Code § 218.5. Efficiency is calculated as the sum of kilowatthours generated and one-half of useful thermal output, divided by fuel input. To qualify for incentives, the facility must utilize thermal output on an average annual basis.

AB 1685 does not provide similar instructions as to how the projects demonstrate compliance with the new efficiency standards. Parties identified two approaches to implement the efficiency requirements.

1. The Commission could require SGIP administrators or applicants to install meters to measure fuel input to the generator and the amount of electricity produced, and install equipment to measure levels of waste heat recovered and utilized. Follow-up monitoring and enforcement could be performed by the program administrators, Itron, or the

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utilities. Noncompliance could result in requiring projects to refund some portion of their rebate.

2. Applicants could submit sufficient engineering calculations, performance specifications, and thermal load analyses, as they do now, to support the project's waste heat utilization efficiency.

Generally, parties acknowledge that measuring fuel input and electricity production is an "after the fact" approach to meeting efficiency eligibility requirements. Although many Level 3 facilities have equipment which measures fuel and production (this data is collected by Itron for program evaluation purposes) it is unclear whether the Commission, program administrators, or utilities have the authority to revoke incentives or undertake other enforcement measures.

Staff recommends the Commission should allow applicants to submit documentation such as sufficient engineering calculations, performance specification, and thermal load analyses to support their waste heat utilization efficiency. In no case should a project receive credits for unused thermal output.

Parties suggest three methods to implement the emissions eligibility requirements of AB 1685:

1. The SGIP could require all fossil-fueled project applicants to submit manufacturer emission specifications with the initial reservation request.
2. An applicant could submit CARB certification, independent source test results, or a permit to operate from other applicable air quality authorities.
3. Projects found operating in non-compliance mode could be required to give back some portion of their incentive.

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To date, CARB has certified two technologies: fuel cells and microturbines. The majority of fossil-fueled projects applying for SGIP rebates are internal combustion or reciprocating engines. Requiring CARB certification alone would automatically eliminate the majority of Level 3 projects without factoring in the efficiency credits allowable under SB 1685. As JPIDG points out, engine manufacturers are preparing to meet the 2007 0.14 NO_x emissions standard, but are unlikely to achieve that level prior to 2007, even with the efficiency credit. A local air permit alone is not sufficient, because not all air districts require projects to meet the emission levels specified in AB 1685.

An independent source test is the most reliable method to ensure individual project compliance. It is also the most expensive option. According to the websites of various California air districts, an independent source test conducted by an approved facility is likely to cost \$4,000 or more. JPIDG asserts that DG developers should not be required to shoulder these costs, and that CARB is more qualified than the Commission to certify low-emission DG technologies.

If the program required a source test at the customer's facility, a DG unit could not be source tested until the project is close to completion. We do not believe the Legislature intends for customers to develop DG projects before incentive funding is assured. Moreover, if the SGIP pays to source-test all non-certified Level 3 applicants, available incentive funds would be greatly reduced for all Level 3 projects. In effect, fuel cells and microturbines would be penalized for having achieved CARB certification.

Energy Division recommends submission of manufacturer emission specifications, along with a permit to operate, is the most practical approach for

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applicants to achieve AB 1685 compliance until such time as CARB certifies additional technologies.

9. Current Funding Levels Should Continue Through 2007

In addition to establishing emissions and efficiency requirements, AB 1685 requires the Commission, in consultation with the California Energy Commission, to implement an incentive program through December 31, 2007, in a similar form as exists on December 31, 2004.

The Commission sought comments from parties as to whether AB 1685 contains any contradictory provision that would restrict the Commission's ability to modify the incentive program, and to identify the types of modifications, if any, that could be made. Most parties agree that the legislation authorizes the Commission to make program modifications. Parties do not agree as to whether this authorization also includes the ability to make changes to the annual funding levels. Capstone argues that the Legislature adopted AB 1685 expressly to ensure that the program would continue at the same funding levels adopted by the Commission through 2004.

Energy Division concludes that two directives are probable: the Legislature intends for the Commission to continue payment of incentives for clean and renewable self-generation, and provides the Commission with flexibility to adopt prudent changes as necessary to ensure successful program implementation. We believe this flexibility includes the ability to adjust annual funding levels. We note that AB 1685 does not provide specific funding mandates, and likely for good reason. As discussed earlier, an appropriate exit strategy must be considered. While most parties favor declining rebates over decreased overall funding, we believe the Legislature did not intend to preclude the Commission from evaluating decreased funding as part of any exit strategy.

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Energy Division recommends the Commission continue the SGIP at current annual funding levels through 2007 until such time as measurement tools are in place and an appropriate exit strategy is developed.

10. The Commission Should Expand Participation in the SGIP Working Group And Create Opportunities For Participation in Other Venues

CALSEIA and DES believe the Commission should broaden Working Group participation to include stakeholders such as end-use customers or program participants. CALSEIA states that program participants should help the Working Group evaluate and adjust the incentive program. DES asserts that the program administrators must know and respond to the needs of participant, and that stakeholder participation may enhance program efficiency and reduce administrative and Commission costs.

The Working Group points out that the Commission denied a similar request by Real Energy, stating in D.02-02-026 that “the working group process is functioning as intended and should continue as structured.” The group also states that the Program Modification Guideline Process (PMG) adopted in D.03-08-013 provides an effective means for industry participants to provide input and recommendations regarding program changes.

Energy Division believes parties may over-estimate the group’s ability to make program changes unilaterally without Commission consent. The Commission should clarify that the purpose of the Working Group is to implement the incentive program approved by the Commission, not to make substantive program modifications without Commission approval. The PMG process cited in comments filed by the Working Group was adopted by the Commission to offer program applicants an alternative to filing a Petition For

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Modification with the Commission, but the Working Group recommendations must be filed with the Commission for consideration.

Energy Division's proposed changes to the incentive structure will reduce many of the complex eligibility issues currently faced by program administrators. This will allow the Working Group to focus on developing a data release format, program exit strategy, and cost-effectiveness schedule as discussed earlier. These activities will benefit from the experience of program and industry participants.

The Assigned Commissioner should solicit Statements of Qualifications from industry representatives interested in participating in Working Group discussions. The solicitation should describe any desired qualifications and a selection process. Participants will be selected by the Assigned Commissioner, in consultation staff, and communicated via ruling to service list for this proceeding.

11. Electric Distribution Companies Should Be Ineligible To Receive SGIP Rebates

In D.01-03-073, the Commission stated that distribution companies may not participate in the SGIP. The SGIP program administrators seek clarification as to which distribution companies are excluded from the program. We recommend the Commission should clarify that privately- and publicly-owned *electric* distribution companies may not participate in the SGIP.

CERTIFICATE OF SERVICE

I certify that I have by mail this day served a true copy of the original attached Administrative Law Judge's Ruling Requesting Comments on Energy Division Recommendations to Improve the Self Generation Incentive Program and Implement Assembly Bill 1685 on all parties of record in this proceeding or their attorneys of record.

Dated July 9, 2004, at San Francisco, California.

/s/ ELIZABETH LEWIS
Elizabeth Lewis

N O T I C E

Parties should notify the Process Office, Public Utilities Commission, 505 Van Ness Avenue, Room 2000, San Francisco, CA 94102, of any change of address to insure that they continue to receive documents. You must indicate the proceeding number on the service list on which your name appears.

The Commission's policy is to schedule hearings (meetings, workshops, etc.) in locations that are accessible to people with disabilities. To verify that a particular location is accessible, call: Calendar Clerk (415) 703-1203.

If specialized accommodations for the disabled are needed, e.g., sign language interpreters, those making the arrangements must call the Public Advisor at

Attachment A
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(415) 703-2074, TTY 1-866-836-7825 or (415) 703-5282 at least three working days in advance of the event.